

Marked-Up Version of the Amended Claims

1. (Amended) A flexible variable rate vocoder for use in a network to process signals, the vocoder having a plurality of output rates, the vocoder comprising:

a rate determination module which configured to selects a target average data rate from a continuous or pseudo continuous range of possible target rates responsive to based on at least one network parameter and at least one external parameter; and

a rate implementation module which configured to sets the select between the plurality of output rates of for coding each of outgoing frames of the signals so that the actual to achieve an average output rate for the outgoing frames, averaged as determined over a predetermined time period, wherein the average output rate is approximately equal to the target average data rate.

- 2. (Amended) The vocoder of claim 1, wherein the rate implementation module is configured to adjust the relative percentages of outgoing frames which the plurality of output rates include are a full rate, a half rate, a quarter rate, and a eighth rate frames such that the average actual rate is approximately equal to the target average rate.
- 3. (Amended) The vocoder of claim 1, wherein the <u>at least one</u> network parameter is indicative of an available network capacity, and the <u>at least one</u> external parameter is an indicator indicative of the one of a plurality of service classes of service desired or purchased by a user.
- 4. (Amended) The vocoder of claim 1, wherein the available plurality of service classes of service comprise a premium class, a standard class and an economy class.
- 5. (Amended) The vocoder of claim 4, in a wireless communication network wherein, the network has a plurality of users, each user of the plurality of users having a desired service class from the plurality of service classes, and wherein when a demand for network services is received, if the network cannot accommodate the a service demand by one of the plurality of



users at the desired quality service class of the one user, the target average data rates associated with the standard class and the economy class are reduced to network will reduce the ADR of all non-premium users until the network can accommodate the service demand at the desired quality.

- 6. (Amended) The vocoder of claim 4, in a wireless communication network wherein, the network has a plurality of users, each user of the plurality of users having a desired service class from the plurality of service classes, and wherein when a demand for network services is received, if the network can easily accommodate the a service demand by one of the plurality of users at the desired quality service class of the one user, the target average data rates associated with the premium class, the standard class and the economy class are increased network will do so and then even increase the ADR of all users until the network is close to saturation.
- 7. (Amended) The vocoder of claim 2, wherein the rate implementation module comprises a switch, a full rate module, a half rate module, a quarter rate module, an eighth rate module, and a multiplexor, and wherein the switch switches amongst selects between the modules for coding each of the outgoing frames, and the multiplexor receives the outgoing frames from each of the modules; and serially outputs them' the outgoing frames on a single line.
- 8. (Amended) The vocoder of claim 1, wherein the <u>at least one</u> network parameter is indicative of an available <u>network</u> capacity, and the <u>at least one</u> external parameter is an indicator indicative of the subject matter of the <u>signals</u> information sought to be transmitted.
- 9. (Amended) The vocoder of claim 8, wherein the available classes of subject matter which can be transmitted comprise one of voice category, data category, music category, and image video category.



- 10. (Amended) The vocoder of claim 9, in a wireless communication network wherein, the network has a plurality of users, when a demand for network services is received, if the network cannot accommodate the additional a service demand by one of the plurality of users at the desired quality target average date rate, the target average data rates associated with one or more categories of the subject matter are reduced to it will reduce the ADR for selected eategories of subject matter, until the network can accommodate the service demand at the desired quality.
- 11. (Amended) The vocoder of claim 9, in a wireless communication network wherein, the network has a plurality of users, when a demand for network services is received, if the network can easily accommodate the a service demand by one of the plurality of users at the target average data rate quality, the target average data rates associated with one or more categories of the subject matter are increased it will do so and then increase the ADR for selected categories of subject matter until the network is within a target amount of saturation.



<u>REMARKS</u>

By this preliminary amendment, claims 12-27 have been cancelled, claims 1-11 have been amended and new claims 28-37 have been added. It is respectfully submitted that no new matter has been added. Accordingly, consideration and examination of the pending claims 1-11 and 28-37 are respectfully requested. The Examiner is invited to contact the undersigned for any questions.

Respectfully Submitted;

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